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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,214	04/02/2004	Liangchi Hsu	871.0110.U1(US)	2420
29683	7590	09/16/2004	EXAMINER	
HARRINGTON & SMITH, LLP			NGUYEN, BRIAN D	
4 RESEARCH DRIVE			ART UNIT	
SHELTON, CT 06484-6212			PAPER NUMBER	
			2661	

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/817,214

Applicant(s)

HSU ET AL.

Examiner

Brian D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on the application filed 4/2/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 5-13 are objected to because of the following informalities:

Claim 5, line 5, "Control Hold Mode" seems to refer back to "a reverse link Control Hold Mode" in line 1. If this is true, it is suggested to change "Control Hold Mode" to ---the Control Hold Mode---. In line 10, "the mode transition request" seems to refer back to "a transition mode request" in line 6. If this is true, it is suggested to change "the mode transition request" to ---the transition mode request---. In line 13, "active state" seems to refer back to "an active state" in line 5. If this is true, it is suggested to change "active state" to ---the active state---.

Claim 6, it is suggested to: insert ---to the Control Hold Mode--- after "active state" in line 2; insert ---by the mobile station--- after "a reverse rate request channel" in line 3; insert ---by the base station--- after "channel" in line 5; insert ---by the base station--- after "link"; and insert ---the--- before "Control Hold Mode".

Claim 7, line 2, it is suggested to insert ---the--- before "Control Hold Mode".

Claim 10, line 5, "Control Hold Mode" seems to refer back to "a reverse link Control Hold Mode" in line 1. If this is true, it is suggested to change "Control Hold Mode" to ---the Control Hold Mode---.

Claim 11, it is suggested to insert ---the--- before "Control Hold Mode" in line 5. In line 13, "the mode transition request" seems to refer back to "a transition mode request" in line 6. If this is true, it is suggested to change "the mode transition request" to ---the transition mode request---. In line 18, "a reverse acknowledgement channel" seems to refer back to "the reverse acknowledgement channel" in line 7. If this is true, it is suggested to change "a reverse

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acknowledgement channel” to ---the reverse acknowledgement channel---. In line 20, it is suggested to insert ---the--- before “active state”.

Claim 13, line 5, it is suggested insert ---the--- before “Control Hold Mode”

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, it is unclear where “a transition mode request” in line 6 is sending to.

Claim 6 recites the limitation “**the transmission** on the Forward Acknowledgement Channel” in line 5 and “**the monitoring** of the reverse link” in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 10, a transition mode request is initiated by the base station, it is unclear where “a transition mode request” in line 6 is sending to.

Claim 11, it is unclear where “a transition mode request” in line 6 is sending to. “In line 7, “the reverse acknowledgement channel” lacks antecedent basis. In line 11, “**the monitoring** of a rate grant channel” lacks antecedent basis. In line 19, “the Forward Packet Data Control Channel” lacks antecedent basis.

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Claim 13, a transition mode request is initiated by the base station, it is unclear where “a transition mode request” in line 6 is sending to. “the packet data channel Control Hold Mode” in line 8 and “the granting base station” in line 10 lack antecedent basis.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Lindskog et al (6,622,251).

Regarding claim 1, Lindskog discloses a medium access control identification code (IMAC\_ID) assigned by a base station from a MAC\_ID space to each one of a plurality of mobile stations; wherein the MAC\_ID is assigned in an ascending order from the MAC\_ID space for a first group of mobile stations, and wherein the MAC\_ID is assigned in a descending order from the MAC\_ID space for a second group of mobile stations (See col. 6, lines 20-27; col. 9, lines 13-18; col. 10, line 52-col. 11, line 28 where two groups of mobile terminals are assigned MAC\_ID in ascending and descending orders).

6. Claims 5-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Duncan Ho et al (2003/0128683).

Regarding claims 5, 7, and 9, Duncan Ho discloses a method for transition from a reverse link Control Hold Mode for a cellular communications system comprising a base station in communication with a mobile station, wherein a reverse link data channel is in operation without an assigned Forward Packet Data Channel, the method comprising: imitating a transition by the mobile station from Control Hold Mode to an active state, by sending a transition mode request; turning on a rate request channel by the mobile station, the mobile station requesting a reverse link transmission; monitoring a rate grant channel with the mobile station; acknowledging the reception of the mode transition request by sending an individual grant to the mobile station from the base station, thereby granting permission to transmit; transitioning the mobile station to active state upon receipt of the grant, the mobile station starting to transmit on the reverse link data channel in autonomous mode; and, commencing monitoring of a Forward Acknowledgement Channel with the mobile station. Wherein the base station controls the transition from the active state to Control Hold Mode when the Forward Packet Data Channel is assigned. Wherein the rate of the grant channel is reduced to reduce the mobile station power consumption (see abstract; paragraphs 0009, 0012, 0057-0061; and figure 4).

Regarding claims 6 and 8, Duncan discloses initiating a transition by the mobile station from the active state comprises: gating a reverse pilot and a reverse rate request channel; detecting the transition by the base station; stopping the transmission on the Forward Acknowledgement Channel; stopping the monitoring of the reverse link; and transitioning the mobile station to Control Hold Mode. Wherein a reverse rate request channel is gated at a reduced rate of one half or less (see paragraphs 0031-0043).

Regarding claim 10, Duncan discloses method for transition from a reverse link Control Hold Mode for a cellular communications system comprising a base station in communication with a mobile station, wherein a reverse link data channel is in operation without an assigned Forward Packet Data Channel, the method comprising: initiating a transition by the base station from Control Hold Mode to an active state by sending a transition mode request; sending an individual grant via a forward grant channel to the mobile station to initiate the mode transition; and transitioning the mobile station to the active state (see abstract; paragraphs 0009, 0013, 0062-0066; and figure 5).

Regarding claims 11-12, Duncan discloses A method for transition from a reverse link Control Hold Mode for a cellular communications system comprising a base station in communication with a mobile station, wherein a reverse link data channel is in operation with an assigned Forward Packet Data Channel, the method comprising: initiating a transition by the mobile station from Control Hold Mode to an active state, by sending a transition mode request; sending an acknowledgement on the reverse acknowledgement channel by the mobile station; initiating on a rate request channel by the mobile station, the mobile station requesting a reverse link transmission; commencing the monitoring of a rate grant channel and a Forward Acknowledgement Channel with the mobile station; acknowledging the reception of the mode transition request by sending an individual grant to the mobile station from the base station, thereby granting permission to transmit; commencing continuous transmission by the mobile station on a reverse channel quality indication channel; turning on a reverse acknowledgement channel; commencing monitoring of the Forward Packet Data Control Channel; and transitioning the mobile station to active state upon receipt of a control message with specific message type,

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the mobile station starting to transmit autonomous rate on the reverse link data channel. Wherein the reverse channel quality indication channel is gated at a reduced rate of one half or less (see abstract; paragraphs 0009, 0012, 0038, 0057-0061; and figure 4).

Regarding claim 13, Duncan discloses a method for transition from a reverse link Control Hold Mode for a cellular communication system comprising a base station in communication with a mobile station, wherein a reverse link data channel is in operation with an assigned Forward Packet Data Channel, the method comprising: initiating a transition by the base station from Control Hold Mode to an active state by sending a transition mode request; settling an extended message type identifier indicating that the mobile station is to exit the packet data channel Control Hold Mode; initiating the mode transition by sending a medium access control identification code by the granting base station via a Forward Packet Data Control Channel to the mobile station; turning on a Reverse Channel Quality Indication Channel and a Reverse Acknowledgement Channel by the mobile station; monitoring the Forward Packet Data Control Channel; and transitioning the mobile station to the active state (abstract; paragraphs 0009, 0013, 0062-0066; and figure 5).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



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8. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindskog et al (6,622,251).

Regarding claims 2-4, Lindskog discloses dividing the mobile terminals into two groups and assigning the MAC\_ID in ascending and descending orders as described in previous paragraph. Lindskog does not specifically disclose the first group uses a forward link channel and the second group uses a reverse link channel. However, to divide the terminals into two groups based on forward and reverse link channel is a matter of design choice because the mobile terminals with common characteristics/features can be grouped into the same group. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to group the mobile terminals based on forward/reverse link channel in order to meet specific needs.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al (6,714,524), Protor et al (2004/0047328), khaleghi et al (2004/0017792), Tsai et al (2003/0223396), Rosen et al (2002/0177461), and Koo et al (2003/0117969).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (571) 272-3084.

The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



9/9/04

**BRIAN NGUYEN**  
**PRIMARY EXAMINER**